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Applied Epi is a nonprofit organization that supports frontline public health with accessible

Bare minimum hardware requirements for R

ziad.khatib **Oct 2022**

Hi,
What is the bare minimum hardware requirements for laptops so the person can install R and R studio to use it please? for example for students in a low-income setting.

For example an Intel 3 processor + 4Gb RAM

Thank you,

Ziad

Solved by **amy.mikhail** in **post 3**

I was working with 4GB RAM for a number of years (as that's what my institution gave me at the time, they were always quite slow to upgrade!). As Alex says, it depends partially on the size of the datasets you are working with. I would say for descriptive analysis and some analytical tasks, for up to 1000 records, you can manage fine with

Skip to main content off (last reply, post 3) art getting a little frustrating for the more computationally intensive tasks (it will still work, it is just that you spend more time waiting for things to run).

> Analytic tasks that increase the number of columns and/or rows in the data will take up more RAM and time, so it is worth being aware of this and looking at alternative strategies if you don't have much RAM.

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aspina **Applied Epi team** **Nov 2022**

Hey Ziad - this depends on how much data you have and how intense the analysis your are trying to run.
The major limiting factor is RAM - as data is stored and used from there.
CPU will make a bit of a difference on speed but for the most part shouldnt be too noticable.
I would say for basic descriptive stuff (counts, basic regressions, tables, figures in rmarkdown report) on small to medium sized data and i3 with 8gb ram would be totally fine. (You could do 4gb ram but it would probably freeze and crash sometimes).

Anything more computationally intense with medium to large datasets you are probably looking at an i5 with 16gb …

hope this helps

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amy.mikhail **Applied Epi team** **Nov 2022**

I was working with 4GB RAM for a number of years (as that's what my institution gave me at the time, they were always quite slow to upgrade!). As Alex says, it depends partially on the size of the datasets you are working with. I would say for descriptive analysis and some analytical tasks, for up to 1000 records, you can manage fine with 4GB RAM. For 5-10,000 records, 4GB can start getting a little frustrating for the more computationally intensive tasks (it will still work, it is just that you spend more time waiting for things to run).

Analytic tasks that increase the number of columns and/or rows in the data will take up more RAM and time, so it is worth being aware of this and looking at alternative strategies if you don't have much RAM.

Also, running 64-bit R is more memory efficient than 32-bit R, but you may still need to use 32-bit R to query Microsoft Access databases (for some reason, the move to 64-bit office didn't really catch on, so most institutes and organisations still install 32-bit office).

Skip to main content **off (last reply, post 3)**

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